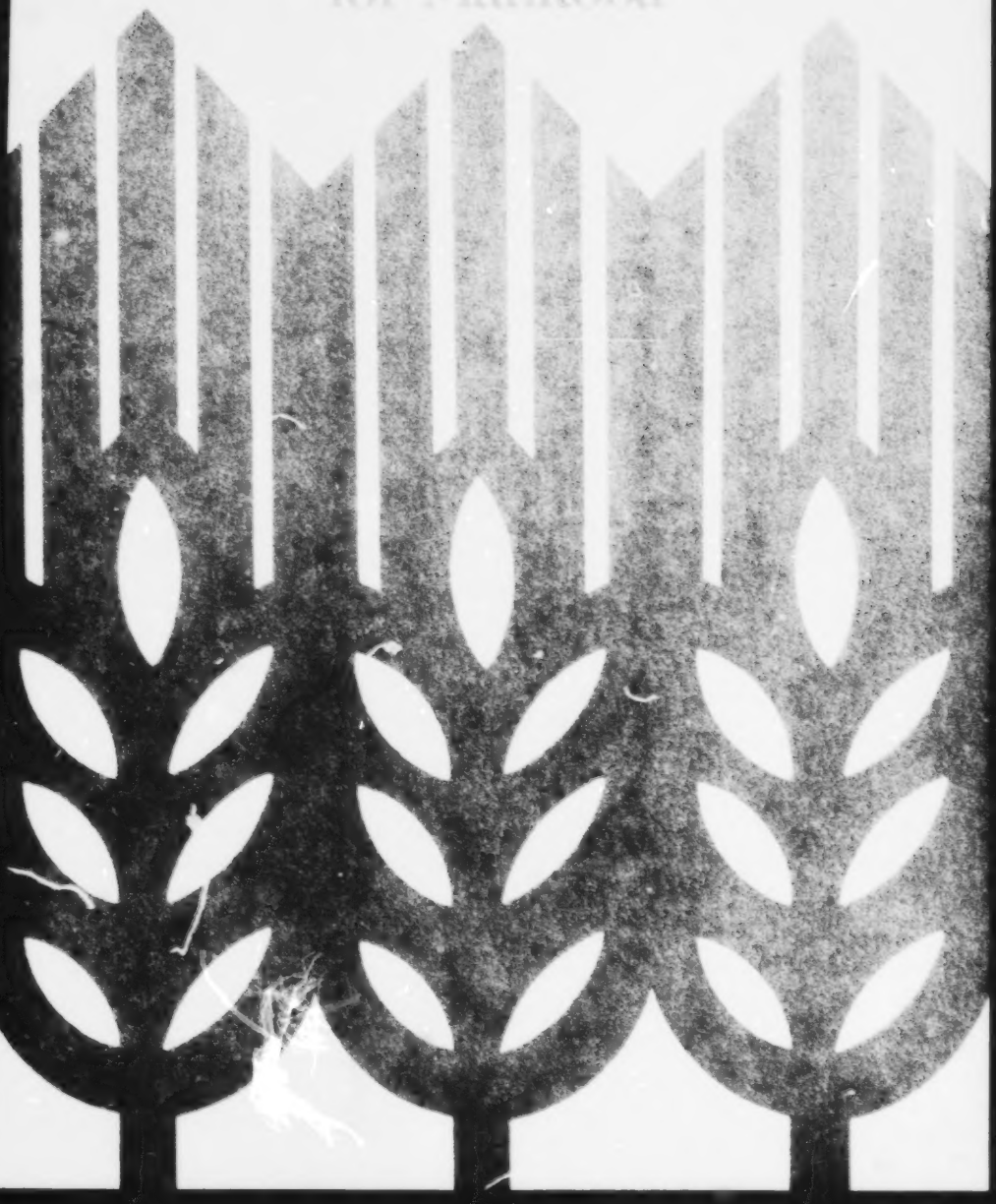
1986

Field Crop Variety Recommendations for Manitoba



86-01654/

1986
FIELD CROP
VARIETY RECOMMENDATIONS
FOR MANITOBA

As approved November, 1985 by the
Manitoba Agricultural Services
Co-ordinating Committee

MANITOBA AGRICULTURAL SERVICES COORDINATING COMMITTEE

Agriculture Canada has a number of Canada Agricultural Services Coordinating Committees (CASCC) whose function is to provide a vehicle for recommendations on a wide range of agricultural activities including research to Agriculture Canada. Under each CASCC committee, referred to as Canada Committees are a number of "expert committees" who meet on an annual basis. They provide recommendations to CASCC and to coordinate the great diversity of agricultural activities.

On the provincial level, similar organizations exist. In Manitoba the overall committee is the Manitoba Agricultural Services Coordinating Committee (MASCC). This main committee is composed of a number of "lead" committees each with a number of sub-committees. The lead committee chairmen are automatically designated as members of the main MASC Committee. There are a number of duties allocated to the lead committees but their main function is to act as a vehicle for recommendations that are passed to MASCC. In turn, MASCC selects, priorizes, and passes them to the appropriate Canada C mmittees, particularly where Agricultural Canada action is requested.

The Crop Science Lead Committee of MASCC has an additional function of providing crop variety recommendations, a duty assumed by the Agronomists' Conference in the past. The various sub-committees under the Crop Science Lead Committee provide the necessary expertise, review the data and propose variety recommendations on cereal, special, and forage crops grown in Manitoba. These recommendations are discussed, ratified, or rejected at an annual meeting of the Crop Science Lead Committee at which all members of the sub-committees are expected to attend. The final crop variety recommendations are printed annually in the Field Crop Variety Recommendations for Manitoba and Field Crop Production Recommendations publications.

MASCC's Soil Science Lead Committee provides a similar function in proposing recommendations on all aspects of fertilizer applications and rates. These are also contained in the *Field Crops Production Recommendations* booklet.

The Agronomy Conference no longer assumes the responsibility of Field Crop Recommendations but functions as a forum for agricultural scientists, extension workers, and farmers to participate in an exchange of information.

This publication is designed to provide up-to-date recommendations for growing field crops. Additional information is available in printed form from Manitoba Agriculture. Contact your local Agricultural Representative office, or write to:

MANITOBA AGRICULTURE
Publications Distribution
411 York Avenue
Winnipeg, Manitoba, R3C 3M1
Telephone: (204) 945-3846

Ask for the *List of Publications* and information on a specific crop.

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CROP INSURANCE

All varieties of insurable crops recommended in this publication are insurable under the Canada-Manitoba Crop Insurance Program. For information on varieties not recommended in this publication please contact your nearest crop insurance office.

CEREAL CROPS

BARLEY

Recommended Varieties

For Malting or Feed (blue aleurone)			
Argyle	all zones	6-row	
Bonanza	all zones	6-row	
Conquest	all zones	6-row	
For Feed (yellow aleurone)			
Bedford	all zones	6-row	
Heartland	all zones	6-row	
Leduc	zones 1, 2, 5 and 6	6-row	See Comments
Norbert	all zones	2-row	See Comments

Comments

Tupper (Bt 445), a non-recommended variety, is a six-rowed hulless feed barley which yields 15 per cent less than Bonanza, since the hull is left in the field. Its maturity is similar to Bonanza, it has good test weight and fair straw strength. It is susceptible to surface-borne smuts, and moderately susceptible to stem rust and loose smut. It has fair root rot and good net blotch resistance.

Tupper is a high energy feed with high protein content and low fibre suitable for hog and poultry rations. Since the markets for hulless barley have not been clearly defined, producers should inquire of their local feed industry as to marketability.

NOTE:

1) *Norbert:*
   a) *Increase seeding rate by 25 per cent to compensate for large kernel.*
   b) *Crop tolerance problems to Hoe-Grass may occur; for herbicide recommendations for Norbert, see the 1986 Guide to Chemical Weed Control.*
2) *Leduc:*

   Not recommended for areas where lodging is a serious problem.

Variety Descriptions

						Resistance to:					
Variety	Yield as per cent of Bonanza	Days to Maturity	Height cm (in)	Bulk Density kg/m³	Bulk Density (lb/bu)	Lodging	Stem Rust	Loose Smut	Surface Borne Smuts	Root Rot	Net Blotch
Argyle	101	86	90 (36)	625	(48.5)	Excel.	Good	Poor	Poor	Fair	Fair
Bedford	109	87	79 (32)	659	(51.2)	Excel.	Good	Poor	Fair	Fair	Fair
Bonanza	100*	85	89 (36)	636	(49.4)	Fair	Good	Poor	Poor	Fair	Fair
Conquest	94	84	93 (37)	631	(49.0)	Good	Good	Poor	Fair	Fair	Fair
Heartland	111	87	75 (30)	638	(49.5)	Good	Good	Poor	Fair	Fair	Good
Leduc	107	89	88 (35)	634	(49.2)	Fair	Good	Fair	Poor	Fair	Fair
Norbert	97	87	80 (32)	671	(52.1)	Excel.	Good	Poor	Poor	Fair	Fair

*Average 74 tests grown 1981-85 was 3902 kg/ha (72.5 bu/acre);
Average 59 tests used for comparisons with 'Heartland' was 3929 kg/ha (73 bu/acre)

Yields by Crop Variety Zone

	Zone				
	1 & 2+	**3**	**4**	**5**	**6**
Number of tests 1981-85	20	24	15	10	5
Variety					
Argyle	103	99	101	101	94
Bedford	110	108	110	103	120
Bonanza	100	100	100	100	100
Conquest	94	97	95	90	94
Heartland**	109(16)*	114(19)	111(12)	96(8)	130(4)
Leduc	110	105	107	112	127
Norbert	97	101	99	95	96

\+ Zone 1 & 2 data combined due to insufficient test sites in Zone 1. Generally yields in Zone 1 will be 17 per cent lower than in Zone 2 according to Manitoba Crop Insurance records.

* Numbers in brackets indicate number of tests grown from 1981-85 inclusive.

** Heartland was tested from 1982-85, inclusive. Following are yield comparisons to Bonanza on a same-test basis:

Average yields					
Heartland comparison					
kg/ha	4309	4289	3469	3609	2723
bu/acre	80.1	79.7	64.5	67.1	50.6
All others comparison					
kg/ha	4053	4267	3582	3714	2888
bu/acre	75.3	79.3	66.6	69.0	53.7

OATS

Recommended Varieties

Dumont	all zones	
Fidler	all zones	
Riel	all zones	See Comments

Comments

Riel is a newly licensed, tan coloured oat variety having exceptional kernel quality characteristics. When compared to "Dumont", Riel has 2 per cent higher protein, 2 per cent lower hull content and 10 kg/m³ (0.8 lbs/bu) higher test weight. Post-harvest sprouting resistance is greater than either Dumont or Fidler. Resistance to rust, smut and Victoria blight are equal to that of Dumont. Seed of Riel was released to SeCan in the spring of 1985 and should be commercially available in 1987.

Variety Description

Variety	Yield as per cent of Dumont	Days to Maturity	Height cm	Height (in)	Per cent Hull	Test Weight kg/m³	Test Weight (lb/bu)	Resistance to: Lodging	Stem Rust	Leaf Rust	Smut
Dumont	100*	98	94	(37)	24.6	518	(41.5)	Fair	Good	V. Good	Good
Fidler	96	95	89	(35)	25.1	495	(39.7)	Good	Good	V. Good	Good
Riel	96	97	95	(37)	21.7	526	(42.2)	Good	Good	V. Good	Good

*Average 59 tests grown 1982-85 was 3923 kg/ha (103.0 bu/acre);
Average 29 tests grown 1984-85 used for comparison with Riel was 4371 kg/ha (114.7 bu/acre)

Yields by Crop Variety Zone

	Zone 1 & 2+	3	4	5	6
Number of tests 1982-85	16	19	12	8	4
Variety					
Dumont*	100	100	100	100	100
Fidler	93	98	92	98	105
Riel	95	94	97	101	97

\+ Zone 1 and 2 data combined due to insufficient test sites in Zone 1. Generally, yields in Zone 1 will be 24 per cent lower than in Zone 2 according to Manitoba Crop Insurance records.

* Average yields.

Fidler comparison					
kg/ha	3876	4302	3684	3742	3464
bu/acre	101.7	112.9	96.7	98.2	90.9
Riel comparison					
kg/ha	4283	4767	4127	4430	3563
bu/acre	112.4	125.1	108.3	116.3	93.5

RYE

Recommended Varieties

Fall Rye

Musketeer	all zones
Puma	all zones

Spring Rye

Gazelle	all zones

Variety Description

Variety (fall)	Yield as per cent of Puma	Order of Maturity	Winter Survival	Resistance to: Lodging	Shattering	Ergot
Musketeer	102	1	Very good	Good	Good	Poor
Puma	100*	2	Very good	Fair	Fair	Fair

*Average 16 station years, 1980-81, 1984-85 all Manitoba, 3875 kg/ha (3457 lb/acre)

Variety (spring)						
Gazelle	73	—	—	Fair	Good	Poor

TRITICALE

Recommended Varieties

Carman	all zones
Welsh	all zones

Triticale yield and protein content are about equal to that of Glenlea wheat. The main uses of triticale, at present time in Canada, are as food for human consumption and for livestock feed.

Variety Description

Variety	Yield as per cent of Glenlea*	Maturity (days)	Height cm	Height (in)	Resistance to: Lodging	Stem Rust	Leaf Rust	Loose Smut
Carman	89	103	104	(41)	Good	Good	Fair	Fair
Welsh	96	102	94	(37)	Good	Good	Fair	Fair

*Average of 72 tests for all Manitoba (1981-85 incl.) Glenlea yield at 3083 kg/ha (49.1 bu/acre) Glenlea maturity is 100 days.

Yields by Crop Variety Zone

	Zone 1 & 2+	3	4	5	6
Tests	20	25	15	10	2
Varieties					
Carman	99*	94	84	86	77
Welsh	95	99	97	102	84
Glenlea Check					
kg/ha	3314	3502	2914	2876	2810
bu/acre	59.2	62.5	52.0	51.4	50.2

\+ Zone 1 and 2 data combined due to insufficient test sites in Zone 1.
* Yield as per cent of Glenlea in each Zone.

WHEAT

Recommended Varieties

Eligible for Canada Western Red Spring grades		
Benito	all zones	
Columbus	all zones	
Katepwa	all zones	See Comments
Neepawa	all zones	See Comments
Sinton	all zones	

Eligible for Canada Prairie Spring (Red) grades

HY 320	all zones	See Comments

Eligible for Canada Utility grades

Glenlea	all zones	

Eligible for Canada Western Amber Durum grades

Arcola	all zones	
Coulter	all zones	
Medora	all zones	
Sceptre	all zones	See Comments

Comments

Neepawa is fairly susceptible to leaf rust and will suffer some yield loss in a year when leaf rust attacks early and severely.

Katepwa has slightly more leaf rust resistance than Neepawa, but will also suffer yield losses in a leaf rust epidemic year.

HY 320 is the first variety in a new class of wheat with medium protein level, medium kernel hardness and medium dough strength — a "triple medium" class. It is susceptible to both loose smut and bunt, so that seed treatment should always be used. It is of semi-dwarf height with resulting short coleoptile and should be sown at a shallow depth.

Sceptre is a newly licensed high yielding variety with maturity and lodging resistance similar to Medora but with slightly shorter straw. Certified seed will not be available for commercial planting in 1986.

NOTE:

Fielder is a soft white spring wheat usually grown under irrigation. It is NOT recommended in Manitoba. It is susceptible to stem rust and the smuts. In 1985 tests it yielded 105 per cent of Neepawa.

Variety Descriptions

Variety**	Yield as per cent of Neepawa	Days to Maturity	Seed Size	Height	Resistance to: Lodging	Stem Rust	Leaf Rust	Loose Smut	Bunt
Benito	97	97	Small	Medium	Good	Good	V. Good	Good	Fair
Columbus	96	100	Medium	Medium+	Excellent	Good	Good	Fair	Good
Katepwa	103	98	Medium	Medium	Excellent	Good	Fair	Good	Good
Neepawa	100*	98	Medium	Medium	Excellent	Good	Poor	Good	Fair
Sinton	97	99	Medium	Medium	Excellent	Good	Good	Poor	Fair
Glenlea	112	101	Large	Medium+	Excellent	Good	V. Good	Good	Fair
HY 320	117	102	Medium+	Short	Excellent	Good	Good	Poor	V. Poor
Arcola	112	99	Large+	Medium	Fair-good	Good	V. Good	Fair	Good
Coulter	110	99	Large	Medium	Fair-good	Good	V. Good	Fair	Good
Medora	114	100	Large	Medium+	Good	Good	V. Good	Fair	Good
Sceptre	113	100	Large	Medium–	Good	Good	V. Good	Fair	Good

*Neepawa yielded 2782 kg/ha (41.4 bu/acre) over the five years, 2968 kg/ha (44.1 bu/acre) over three years, and 3967 kg/ha (59.0 bu/acre) in 1985

**Number of years tested:

5 years	Benito, Columbus, Katepwa, Neepawa, Sinton, Glenlea, Coulter, Medora
3 years	HY 320, Arcola
1 year	Sceptre

Yields by Crop Variety Zone

	Zone					
	1 & 2+	3	4	5	6	Years Tested
Variety						
Benito	97	99	96	91	95	5
Columbus	101	95	94	92	87	5
Katepwa	100	105	104	104	109	5
Neepawa*	100	100	100	100	100	5
Sinton	95	104	96	92	80	5
Glenlea	110	115	112	108	112	5
HY 320	118	119	104	124	119	3
Arcola	107	117	109	119	96	3
Coulter	110	114	106	107	102	5
Medora	113	121	108	109	107	5
Sceptre	110	121	112	110	83	1
5 year yield						
kg/ha	3084	3035	2598	2652	2340	
bu/acre	45.9	45.1	38.6	39.4	34.8	
No. of tests	20	25	15	10	3	
3 year yield						
kg/ha	3180	3201	2716	2630	2102	
bu/acre	47.3	47.6	40.4	39.1	31.3	
No. of tests	12	15	9	6	2	
1 year yield (1985)						
kg/ha	4362	4031	4059	3639	2440	
bu/acre	64.0	59.9	60.4	54.1	36.3	
No. of tests	4	5	3	2	1	

* Comparisons of varieties to Neepawa for yield were made on a same year(s)/tests basis. The following table shows actual yields for Neepawa for the comparative years of testing.

\+ Zone 1 and 2 data combined due to insufficient test sites in Zone 1. Generally, yields in Zone 1 will be 21 per cent lower than in Zone 2 according to Manitoba Crop Insurance records.

WINTER WHEAT

All licensed varieties lack sufficient hardiness for conventional production in Manitoba. Norstar is the hardiest variety available. Direct planting into stubble provides a snow trap that improves winter survival. Currently licensed varieties are very susceptible to leaf and stem rust.

OILSEEDS AND SPECIAL CROPS

BUCKWHEAT

Recommended Varieties

Large Seeded

Mancan	all zones
Manor	all zones

Small Seeded

Tokyo	all zones

Variety Description

Variety	Yield as per cent of Tokyo	Days to 100 per cent Bloom	Height cm	Height (in.)	Seed Weight g/1000
Mancan	96	42	106	(42)	27.2
Manor	103	41	105	(41)	26.9
Tokyo	100*	39	103	(41)	21.7

*Average 41 station years, Manitoba Co-operative and Adaptation tests, 1981-85, 1379 kg/ha (1229 lb/acre)

CANARYSEED

Canaryseed is the main ingredient of bird food mixtures for caged and wild birds. Generally, it is grown under contract with the contracting agency supplying the seed.

Variety Description

Variety	Yield as per cent of Alden	Days to Maturity	Height cm	Height (in.)	1000 Seed wgt. (g)
Alden	100*	96	78	(30.7)	7.3
Keet	104	96	77	(30.3)	72.2

*Average of 31 station years, 1982-85, all Manitoba 1643 kg/ha (1465 lb/acre)

CANOLA-RAPESEED

Recommended Varieties— All Canola Types— (all low erucic, low glucosinolate)

Argentine type (Brassica napus)

Andor	all zones
OAC Triton	all zones
Regent	all zones
Westar	all zones

Polish type (Brassica campestris)	
Candle	all zones
Tobin	all zones

Comments

The western Canadian oilseed crushing industry now processes only seed from canola (low erucic, low glucosinolate) varieties. Importers in other countries are also developing a preference for canola. The conversion in Canada to canola varieties is virtually complete. It is recommended that producers use only certified seed of the recommended canola varieties to assure acceptability of their product.

Limited production of high erucic acid rapeseed varieties (Reston and R-500) for industrial markets is continuing. These varieties are grown on a contract basis only.

Variety Description

Species and Variety	Yield as per cent of Regent	Days to Maturity	Height cm	Height (in.)	Seed Oil (per cent)	Meal Protein (per cent)	Resistance to: White Rust/ Staghead	Resistance to: Blackleg
Argentine (B. napus)								
Andor	108	94	100	(39)	42.2	45.4	Good	Poor
OAC Triton	75	98	99	(39)	38.6	47.5	Good	Poor
Regent	100*	96	102	(40)	41.8	46.6	Good	Poor
Westar	119	94	101	(40)	42.4	44.8	Good	Poor
Polish (B. campestris)								
Candle	85	81	91	(36)	40.1	42.9	Fair	Poor
Tobin	88	81	94	(37)	40.5	42.8	Good	Poor

*Average 33 station-years (1983-85), all Manitoba, 2039 kg/ha (1819 lb/acre)

Yields by Crop Variety Zone

	Zone				
	1 & 2+	**3**	**4**	**5**	**6**
Station years	10	9	5	6	3
Species and Variety					
Argentine (B. napus)					
Andor	103	106	98	122	109
Regent	100	100	100	100	100
OAC Triton	72	80	72	78	75
Westar	107	117	105	129	135
Polish (B. campestris)					
Candle	85	84	75	99	81
Tobin	91	88	80	98	84
Regent Check					
kg/ha	1976	1727	1889	2447	2154
lbs/acre	1763	1540	1685	2183	1921

\+ Zone 1 and 2 data combined due to insufficient test sites in Zone 1. Generally, yields in Zone 1 will be 12 per cent lower than in Zone 2, according to Manitoba Crop Insurance records.

FABABEANS

Recommended Varieties

Ackerperle	all zones
Aladin	all zones
Herz Freya	all zones
Outlook	all zones
Pegasus	all zones

Fababeans are an annual legume grown for export as food and for on farm feed sources.

Variety Description

Variety	Yield as per cent of Ackerperle	Seed Wgt. g/1000	Days to Maturity Average	Days to Maturity Range	Protein Content per cent
Ackerperle	100*	337	105	104-107	29.6
Aladin	105	389	106	105-107	29.8
Herz Freya	99	363	101	100-102	28.6
Outlook	102	337	104	101-106	29.6
Pegasus	105	361	104	103-106	29.7

*Average of 21 station years, 1981-1985, 3404 kg/ha (3037 lb/acre)

FIELD BEANS

Recommended Varieties

Varieties	Type	
Loop	Black	South of township 14. Zones 1, 2, 2A, 3 and 3A and that portion of Zone 4 with a minimum corn heat unit accumulation of approximately 2400.
Seafarer	Navy	

Pinto beans have not been included because there is no variety licensed in Canada. In Co-operative and Adaptation tests in Manitoba (1983-85) the yield of Pinto Beans is 135 per cent of that of Seafarer and the variety UI 111 (not licensed) is eight days later in maturity than Seafarer.

Variety Description

Type	Variety	Yield as per cent of Seafarer	Seed Weight g/1000	Maturity Range in Days	Plant Height cm	Plant Height (in.)
Black	Loop	112	201	103-123	50	(20)
Navy	Seafarer	100*	209	93-104	40	(16)

*Average of 28 station years, 1981-85, Manitoba Co-operative and Adaptation Trials, 2087 kg/ha (1862 lb/acre)

FIELD PEAS

Recommended Varieties

Yellow Peas			
Century	all zones	large-seeded	
Tara	all zones	medium-seeded	
Tipu	all zones	medium-seeded	See Comments
Trapper	all zones	small-seeded	
Victoria	all zones	medium-seeded	See Comments
Green Peas			
Triumph	all zones	large-seeded	

Field peas are used mainly in the soup industry and are a good protein supplement for livestock, particularly swine.

Tipu, a semi-leafless variety in which leaflets are modified into tendrils, was licensed in 1985. It was developed at the Agriculture Canada Research Station, Morden from a backcross breeding program using Century as a recurrent parent. Tipu exhibits superior standing ability as compared with other varieties. It also offers many other advantages such as better penetration of pesticide sprays, uniform maturity and shorter drydown period. Direct combining is easier which reduces shattering losses. Tipu yields similar to Century and has a seed size slightly smaller than Century. The seed will be distributed by SeCan.

Victoria was developed in Sweden by Svalof A.B. and licensed in Canada in 1984. It is a yellow-seeded variety which yields 4 per cent higher than Century. It has a medium seed size, shorter vine length and matures 5-6 days earlier than Century. The seed distribution rights for Manitoba have been assigned to Manitoba Pool Elevators.

Variety Description

Variety	Yield as per cent of Century	Days to Mature	Lenth of Vine cm (in.)	Seed Weight g/1000	Protein per cent
Century**	100*	96	107 (42)	233	23.5
Tara	115	97	101 (40)	192	23.1
Tipu**	100	99	116 (46)	224	22.9
Trapper	99	95	99 (39)	141	23.7
Triumph	105	99	77 (30)	299	23.8
Victoria	104	90	88 (35)	184	23.9

*Average of 15 station-years, (1983-85), Manitoba Co-operative Tests and Adaptation Trials, 2546 kg/ha (2272 lbs/acre)

**Long term average of 85 station years, 1974-85, Manitoba Co-operative Tests and Adaptation Trials, 2189 kg/ha (1953 lbs/acre)

FLAX

Recommended Varieties

Culbert	all zones
Dufferin	all zones
Linott	all zones
McGregor	all zones
NorLin	all zones
NorMan	all zones

Plant all varieties, particularly Dufferin and McGregor, early for maximum yield. In northern areas use the earlier Culbert, Linott, NorLin or NorMan. When seeding is delayed, Culbert, Linott and NorLin will give the best results. Sown early or late, Culbert yields slightly less than Linott and may mature two to four days later.

Variety Description

Variety	Yield as per cent of Dufferin	Days to Maturity	Height cm	Height (in.)	Seed Weight g/1000	Per cent Oil Content	Oil** Quality	Reaction to: Rust	Reaction to: Wilt
Culbert	92	96	60	(24)	5.7	43.2	189	Res.	Mod. Res.
Dufferin	100*	99	67	(26)	5.6	44.1	181	Res.	Mod. Res.
Linott	94	94	61	(24)	5.3	43.0	183	Res.	Mod. Res.
McGregor	101	100	66	(26)	5.2	43.0	184	Res.	Mod. Res.
NorLin	101	95	62	(24)	5.4	42.4	181	Res.	Mod. Res.
NorMan	102	97	63	(25)	5.6	43.7	177	Res.	Mod. Res.

*Average 88 station-years, 1981-85, Manitoba Co-operative and Adaptation Trials, 1646 kg/ha (1468 lb/acre)

**Drying property measured in iodine units.

Yields by Crop Variety Zone

	Zone 1 & 2+	Zone 3	Zone 4	Zone 5	Zone 6
Station years	23	23	11	9	3
Variety					
Culbert	90	88	103	95	87
Dufferin*	100	100	100	100	100
Linott	90	94	96	90	100
McGregor	101	102	103	100	98
NorLin	99	98	114	96	106
NorMan	103	102	113	103	104
*Dufferin					
kg/ha	1449	1854	1140	1744	1791
lbs/acre	1293	1654	1017	1556	1598

\+ Zone 1 and 2 data combined due in insufficient test sites in Zone 1. Generally, yields in Zone 1 will be 22 per cent lower than in Zone 2, according to Manitoba Crop Insurance records.

LENTILS

Recommended Varieties

Eston	all zones
Laird	all zones

Chilean (common) lentils are not licensed in Canada but are commonly grown in Manitoba. In Co-operative and Adaptation trials in Manitoba (1981-85) the yield of Chilean (common) is 104 per cent of Laird, and four days earlier in maturity.

Variety Description

Type	Variety	Yield as per cent of Laird	Days to Mature	Seed Weight g/1000	Plant Height cm	(in.)
Persian	Eston	132	95	37	40	(16)
Chilean	Laird	100*	102	69	54	(21)

*Average of 55 station years, 1981-85, Manitoba Co-operative and Adaptation Trials, 1430 kg/ha (1275 lb/acre)

MUSTARD

Recommended Varieties

Yellow — Gisilba, Kirby, Ochre, Tilney
Oriental — Domo, Lethbridge 22A

Brown mustard has not been included because there are no recommended licensed varieties. In Co-operative tests in Manitoba (1979-84) the yield of Common Brown is 112 per cent of that for Gisilba.

The yellow mustard variety Tilney was developed in England by Reckitt and Colman Products Ltd. Tilney averages two to three per cent lower oil content and has a slightly higher 1000 seed weight than the varieties Ochre and Kirby. Seed will be distributed in Canada by United Grain Growers.

Variety Description

Kind of Mustard	Variety	Yield as per cent of Gisilba	Days to Maturity	Height cm	(in.)	Oil per cent
Yellow	Gisilba	100*	91	94	(37)	25.6
Yellow	Kirby	116	93	102	(40)	25.9
Yellow	Ochre	107	92	99	(39)	26.2
Yellow	Tilney	111	92	113	(45)	24.9
Oriental	Domo	180	89	117	(46)	37.2
Oriental	Leth 22A	160	89	116	(46)	35.9

*Average 13 station-years, (1984-85), all Manitoba, 1949 kg/ha (1739 lbs/acre)

POTATOES

Recommended Varieties

Early Crop	Storage
Red-Norland	Red-Norland, Red Pontiac
White-Warba	White - Norchip, Kennebec, Shepody,
Carlton	Russet - Russet Burbank

Variety Description

Carlton An early maturing variety with white skinned oval, shallow eyed tubers that size as early as Warba. Boiling quality is similar to Warba.

Warba An early maturing variety with a white skinned, pink deep eyed, scab susceptible tuber suitable for early initial harvest and table stock use. Commercial market acceptability is for a very limited volume over a short period of time.

Norland A good yielding early maturing variety with red skinned, shallowed eyed tubers suited for early harvest and storage until mid-winter.

Norchip A good yielding, medium maturing variety with white skinned high specific gravity tubers. It has acceptable chipping characteristics and a short dormancy period.

Kennebec A very late maturing high yielding variety with white skinned, shallow eyed tubers suitable for chipping. It is susceptible to greening.

Red Pontiac A high yielding drought tolerant variety with red skinned, medium deep eyed tubers of low dry matter content. Suitable for table stock use.

Russet Burbank A high quality, late maturing variety with russet skinned, long, shallow eyed tubers suitable for processing (other than chips), baking and table stock use. Its tuber shape can be extremely variable if plants are subject to stress during the tuber enlargement period of growth.

Shepody A high quality, late mid-season maturing variety with large, white skinned, oblong to elliptical tubers. Yield, specific gravity and french fry color are similar to Russet Burbank. First harvest for processing is expected to be acceptable at a minimum of five to seven days earlier than Russet Burbank.

SAFFLOWER

The variety Saffire was developed by Agriculture Canada, Research Station, Lethbridge and licensed in 1985. This variety is moderately susceptible to Alternaria blight and resistant to Sclerotinia head rot. It is an early maturing variety (99 to 141 days). Seed is distributed by SeCan. Seed of Saffire will be in short supply.

The commercial production of safflower was reintroduced in Manitoba in recent years. This thistle-like plant grows 40 to 75 cm (16 to 30 inches) in height; is tolerant to high temperatures; and is relatively resistant to drought. It is adapted to well-drained, fertile soils. Safflower must be planted early since the growing season is approximately 107 to 156 days. The seedlings are frost hardy.

Safflower will not compete with weeds; therefore, this crop must be grown on clean land. To date no chemicals have been registered for use with this crop. Safflower must not follow safflower in rotation because of their susceptibility to Alternaria blight. Because of Sclerotinia disease, faba-beans, field beans, field peas, lentils, mustard, canola, (rapeseed), soybeans and sunflowers should be avoided in the rotation. Since these diseases are a problem, safflower should be grown in the dry areas of south western Manitoba. Because research in this crop is limited and also because it is prone to diseases, it should be considered a risk crop and grown only after additional information is obtained from a contracting agency.

SOYBEANS

Recommended Varieties

	Maturity Group	Minimum Corn Heat Unit Requirement
Baron	000	2450
KG 20	00	2400
Maple Amber	000	2300
Maple Presto	000	2200
Maple Ridge	000	2300
McCall	00	2500

Soybeans are placed into maturity groups based on their photoperiod sensitivity. 00 maturity group soybeans are the earliest maturing photoperiod sensitive soybeans, adapted for production in the 45 to 50 degree latitude range. 000 maturity group soybeans are very early maturing photoperiod insensitive soybeans adapted for production at high latitudes.

Seed treatment with the specific inoculum is essential.

Baron, licensed in 1984, was crossed by Agriculture Canada Research Station, Ottawa and selected by W. G. Thompson & Sons Ltd., Blenheim, Ontario. It is higher in yield than Maple Presto, Maple Amber and McCall, and matures earlier than Maple Amber and McCall. Seed will be available from Hyland Seeds, Carman.

NOTE: The variety Maple Presto may be dropped from the recommended list for 1987.

Variety Description

Variety	Yield as per cent of Maple Amber	Seed Weight g/1000	Days to Maturity		Protein Content per cent	Oil Content per cent	Height	
			Average	Range			cm	(in.)
Baron	107	156	109	100-124	40.7	20.7	71	(28)
KG 20	109	175	108	100-126	40.8	19.1	74	(29)
Maple Amber	100*	151	113	101-130	41.0	21.3	75	(30)
Maple Presto	85	140	101	91-112	41.1	20.6	65	(26)
Maple Ridge	106	139	107	98-118	41.5	19.6	65	(26)
McCall	97	144	114	106-134	39.7	20.0	78	(31)

*Average of 22 station years, 1983-85, 2147 kg/ha (1915 lb/acre)

SUGAR BEETS

This crop is grown under contract with Manitoba Sugar Company and seed is provided under the contract.

SUNFLOWERS

Varieties

All oilseed varieties listed in the variety description table are recommended in Zones 1 and 2 (south of township 18), and Zones 2A, 3, 3A, and 4 (south of township 19).

The non-oilseed varieties D131, SigCo 954 and Sundak are recommended only in Zones 3 and 3A.

Variety Description

Variety Oil Type	Yield as per cent of 894	Days to Maturity	Per cent Oil (10 per cent Moisture)	Resistance to:		
				Rust	Verticillium Wilt	Downy Mildew****
Car. 204	101	116	39.4	Fair-poor	Good	Good
Car. 205	103	114	41.9	Fair-poor	Good	Fair
Car. 206	102	117	40.5	Fair-poor	Good	Fair
Car. 207*	117	116	39.0	Good	Good	Poor
DO 164	101	115	38.6	Good	Good	Good
DO 844	100	114	39.2	Good	Good	Good
IS 3001	103	115	42.2	Fair-poor	Good	Fair
IS 7000	99	114	41.7	Good	Good	Fair-poor
7101 (IS)	102	114	40.1	Fair-poor	Good	Good
IS 7111	102	113	42.8	Fair-poor	Fair	Fair-poor
J-501	96	115	38.7	Fair-poor	Good	Fair
PAG SF 102	102	116	40.7	Fair-poor	Good	Fair
S1283 (Stauffer)*	95	110	41.4	Fair-poor	Fair-poor	Fair
S1888 (Stauffer)*	103	115	40.2	Fair-poor	Good	Good
S316 (SeedTec)*	102	116	41.0	Fair-poor	Good	Fair
SigCo 448*	97	116	42.4	Good	Good	Fair
SigCo 450	100	115	40.4	Fair-poor	Good	Fair
Sun M20	95	108	41.9	Fair-poor	Fair-poor	Poor
Sunbred 265	106	115	41.0	Good	Good	Good
894	100***	115	39.9	Fair-poor	Good	Good
Saturn**	82	110	39.8	Poor	Fair-poor	Poor

Non-Oilseed Type			Seed Size per cent over 28/64			
D131	104	116	18	Good	Fair	Poor
SigCo 954*	105	114	29	Good	Good	Poor
Sundsk**	93	115	26	Good	Fair-poor	Poor

*On recommended list for the first time.

**Open pollinated varieties.

***Average 28 station-years, 1981-84, All Manitoba, 2247 kg/ha (2006 lbs/acre)

****Reactions indicated are those to race two of the downy mildew pathogen. However, hybrids and varieties are all highly susceptible to race three, currently well established in Manitoba.

Lodging resistance data are available in the Manitoba Regional Sunflower Performance Tests Report.

Performance of Corn Hybrids

Morden, Ridgeville, Brandon, Carman — 1983 - 85 (11 station years)

Hybrids Recommended for grain and silage

Heat Unit Rating**	Brand and/or Hybrid Name	Hybrid type[1]	Days to Silk	Stalk break (per cent)	Root lodg. (per cent)	Grain Density (per cent of mean)[2]	Grain Moisture (per cent)	Grain Yield (per cent of mean)[3]	Forage Yield (per cent of mean)[4]	Plant Moisture (per cent)
	+Pickseed 2486*	3W	75	14.0	2.3	102	23.1	102	—	—
2150	Pioneer 3995	3W	74	14.9	2.5	102	26.1	93	85	63.0
	+Pride K730*	3W	77	8.0	1.0	107	22.8	100	90	61.5
	Co-op 2350*	MSC	77	11.6	2.2	102	25.7	98	91	60.9
	Limagrain LG3	3W	74	10.4	4.8	103	27.6	95	95	62.3
2200	Limagrain LG133	3W	76	9.7	3.2	101	27.1	99	91	64.3
	Pickseed 2120	3W	76	8.4	2.2	98	28.0	95	92	61.1
	Pioneer 3994	3W	75	11.3	1.8	99	28.9	96	88	63.0
	Pioneer 3996	3W	77	14.2	2.0	102	26.6	95	87	59.9
	Dekalb DK246	3W	78	9.9	2.7	100	27.4	95	84	57.1
	Funk G4083	SC	78	11.6	1.2	103	28.3	96	94	63.6
	+Hyland HL3251*	3W	76	9.4	2.9	101	29.0	111	96	63.8
	(Maisadour) Koala	3W	76	18.2	1.1	101	30.4	107	—	—
2250	NK PX9028*	3W	79	7.2	1.7	102	24.8	98	111	61.8
	PAG SX104	MSC	77	16.6	1.4	99	28.6	102	95	61.1
	Pioneer 3969	SC	77	6.8	1.0	99	27.4	116	102	62.6
	Pride K1107	3W	78	14.2	2.7	98	27.6	100	90	59.8
	(UGG) MAC RL211	3W	78	12.6	1.1	102	28.0	103	99	64.9
	Funk G4016	3W	78	9.1	1.3	102	30.4	98	111	65.2
	Hyland HL1125	3W	78	14.4	2.6	101	29.6	94	87	67.0
	PAG SX95	MSC	79	8.5	5.6	97	27.3	102	101	63.1
	Pickseed 2011	3W	77	12.5	2.4	99	31.0	96	87	62.7
2300	Pickseed 2020	SC	79	8.9	3.1	101	27.6	96	85	65.4
	Pickseed 2240	MSC	79	11.2	1.9	102	27.6	100	105	65.7
	Pickseed 2555A	MSC	79	10.2	5.3	99	28.4	104	105	63.5
	Pride R090	MSC	79	15.0	2.1	99	29.0	95	92	59.4
	(UGG) MAC RL215	3W	79	9.4	1.6	101	28.6	98	100	64.7
2350	Dekalb DK24	3W	80	13.1	4.0	96	29.8	93	101	66.2
	Pride 1111	SC	80	12.4	1.5	96	29.1	98	101	63.2

\+ Subject to licensing by Agriculture Canada

* On recommended list for first time

** Entries arranged alphabetically within Heat Unit categories. HU requirements of a hybrid may vary slightly from year to year, therefore relative yearly ranking may change. HU ratings based on HU requirement to mature grain.

[1] SC = single cross; 3W = three way cross; MSC = modified single cross

[2] Mean grain density = 653 k/m³ (52.3 lb/bu)

[3] Mean grain yield = 4.04 t/ha (64.4 bu/ac) at 15.5 per cent moisture

[4] Mean silage DM yield = 9.9 t/ha (4.4 t/ac)

Performance of Corn Hybrids

Morden, Ridgeville, Brandon, Carman — 1983 - 85 (11 station years)

Hybrids recommended for silage only

Heating Unit Rating**	Brand and/or Hybrid Name	Hybrid Type[1]	Days to Silk	Plant Yield (per cent of mean)[2]	Plant Moisture (per cent)
2400	Co-op S259	SC	80	109	64.5
	Pioneer 3953	SC	78	113	65.0
2450	Funk G4066	MSC	79	102	66.3
	(Jacques) JX5	SC	80	113	66.7
	N.K. PX414	3W	79	111	67.1
	Pioneer 3957	SC	79	106	67.0
2500	Co-op 2610	MSC	81	113	67.3
	Dekalb T778	MSC	81	105	68.8
	Dekalb XL6	SC	81	109	67.4
	First Line 1626*	SC	81	113	68.3
	Funk G4086	3W	80	98	67.4
	Hyland HL2428	SC	81	120	68.0
	N.K. PX9902	3W	81	115	69.1
	PAG SX111	SC	81	106	66.9
	Pickseed 2344	3W	80	112	67.6
	Pride R108	3W	80	97	68.2
	Pride 1131	SC	81	111	67.0
2550	Asgrow RX277	SC	82	122	69.0
	Cargill 810	SC	81	112	69.5
	Funk G4102*	3W	82	117	70.0

* On recommended list for first time.

** Entries arranged alphabetically within Heat Unit categories. HU requirement of hybrid may vary slightly from year to year, therefore relative yearly ranking may change. HU ratings based on HU requirement to mature grain.

[1]SC = single cross; 3W = 3-way cross; MSC = modified single cross.

[2]Mean silage DM yield = 9.9 t/ha (4.4 t/ac)

FORAGE CROPS

GRASSES

Crops and varieties are listed in alphabetical order.

*Bluegrass**

Bromegrass
- Baylor
- Beacon
- Blair
- Carlton
- Magna

*Creeping Red Fescue**

Crested Wheatgrass
- Fairway
- Nordan
- Parkway

Intermediate Wheatgrass
- Chief

Meadow Fescue
- Ensign
- Trader

Orchardgrass
- Frode
- Kay

*Reed Canarygrass**

Russian Wild Ryegrass
- Swift

Slender Wheatgrass
- Revenue

Tall Wheatgrass
- Orbit

Timothy
- Champ — Pasture type
- Climax — Hay type

*Insufficient data available for variety recommendation.

LEGUMES

Crops and varieties are listed in alphabetical order.

Alfalfa

*Early Maturing**

Apica	Hay type
Anchor	Hay type
Angus	Hay type
Banner	Hay type
Blazer	Hay type
Chimo	Hay type
Citation	Hay type
Hunter	Hay type
Thor	Hay type
Vista	Hay type

*Medium Maturing**

Algonquin	Hay type
Beaver	Hay type
Pickstar	Hay type
Vernal	Hay type

*Creeping rooted**

Drylander	Pasture type
Rambler	Pasture type
Rangelander	Hay and Pasture type
Spredor II	Pasture type

*Alsike Clover***

Birdsfoot Trefoil

Cree	For seed and pasture
Empire	For seed and pasture
Leo	For seed and pasture

*Red Clover***

Sweet Clover

Norgold	Yellow blossom, low coumarin
Polara	White blossom, low coumarin
Yukon	Yellow blossom

*Early maturing, medium maturing and creeping rooted alfalfas are recommended in Manitoba. The early maturing varieties develop quickly in the spring and provide more and earlier regrowth than medium maturing varieties. The medium varieties are more winter hardy than the early varieties. Creeping rooted alfalfas are somewhat lower yielding than either the early or medium maturing types but they are the most persistent.

**Insufficient data available for variety recommendation.